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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/785,529	02/24/2004	Donald A. Meltzer	202ES048A	1543

37535 7590 07/08/2009

LEGAL DEPARTMENT
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EXAMINER	
SERGENT, RABON A	
ART UNIT	PAPER NUMBER
1796	
MAIL DATE	DELIVERY MODE
07/08/2009	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/785,529	MELTZER ET AL.	
	Examiner	Art Unit	
	Rabon Sergent	1796	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *17 March 2009*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-4,6,7,10,13-39 and 42* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-4,6,7,10,13-39 and 42* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

2. Claims 1-4, 6, 7, 10, 13-39, and 42 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ehrlich et al. (‘904) in view of van Der wal et al. (‘445) and Mao (‘572).

Ehrlich et al. disclose thermoplastic polyurethanes, wherein MDI is reacted with a blend of polyester polyol and polyether polyol, wherein the polyester polyol component and polyol relative amounts meet those claimed, and a chain extender component, wherein the chain extender component comprises straight chain diols, such as those having 2 to 6 carbon atoms, or bis(hydroxyethyl)ethers of hydroquinone and further wherein up to 25 equivalent (molar) percent of the chain extender may be branched chain diols, diethylene glycol, or dipropylene glycol. See abstract; column 2, lines 40+; column 3, lines 6-43; columns 4-6; and column 7, lines 1-50, especially column 3, lines 38-43. Applicants’ catalyst amount of claim 36 is disclosed at column 7, lines 47-50. Furthermore, patentees disclose the use of extrusion equipment and conventional

processes for producing the thermoplastic polyurethane; therefore, applicants' claimed twin screw extruder and processing times (claims 37 and 39) are considered to be encompassed by patentees. Given the disclosed amounts of polyols and chain extenders, applicants' claimed ratio is considered to be met.

3. However, the primary reference is silent regarding the use of polyoxytetramethylene polyols and the use of the thermoplastic polyurethane to produce coated fabrics and conveyor belts. With respect to the issue of the polyoxytetramethylene polyol, van Der wal et al. disclose thermoplastic polyurethanes derived from blends of polyester diols and polyether diols, wherein the respective amounts of the polyester diol and polyether diol satisfy that instantly claimed and further wherein a suitable polyether diol is disclosed as being polyoxytetramethylene diol (column 3, lines 67 and 68). While van Der wal et al. disclose such polyols as polyoxypropylene-polyoxyethylene glycol, van Der wal et al. further disclose at column 4, lines 8 and 9 that poly(tetramethylene oxide) diol (polyoxytetramethylene polyol) is the most preferred polyether polyol. Therefore, the secondary reference establishes that the use of applicants' claimed diol within an analogous thermoplastic polyurethane was not only known at the time of invention, its use was preferred. Accordingly, it would have been obvious to incorporate such a polyether diol in the claimed amount into the composition of the primary reference, so as to arrive at the instant invention. With respect to the issue of the production of coated fabrics and conveyor belts, it is noted that both van Der wal et al. and Mao disclose the production of thermoplastic polyurethanes, derived from blends of polyester polyols and polyether polyols, that are considered to be analogous to those of the primary reference, and further that van Der wal et al. disclose the production of conveyor belts and Mao discloses the

production of coated fabrics (abstracts). Accordingly, since these applications for analogous thermoplastic polyurethanes were known at the time of invention, the position is taken that it would have been obvious to utilize the thermoplastic polyurethane composition of Ehrlich et al. to produce the instantly claimed coated fabrics and conveyor belts.

4. Applicants' response of March 17, 2009 has been considered; however, it is insufficient to overcome the prior art rejection. Applicants have amended the independent claims to include limitations that were previously present within dependent claims; however, it is noted that these limitations have been previously considered by the examiner. Applicants have argued that Ehrlich et al. disclose that at least 15 wt% of the polyol can be replaced with a triol and that this would cause the polyurethane to crosslink. In response, Ehrlich et al. do not mandate the use of the argued triol; patentees clearly allow for the use of diol, as well. Furthermore, as evidenced by numerous recitations within the reference, it is clear that Ehrlich et al. requires the polyurethanes to be thermoplastic. Accordingly, applicants' argument that the polyurethane would be unsuitable for calendaring and extruded film application amounts only to unsupported opinion. Applicants further essentially argue that that the broad teaching within Ehrlich et al. regarding the mixing of polyols does not help solve the problem of the current invention. In response, this argument fails to appreciate the teachings within van Der wal et al. regarding the use of polyester polyol and polyether polyol in amounts that satisfy the claims. Furthermore, despite applicants' criticism of the teachings within Ehrlich et al. concerning the use of a co-chain extender, the fact remains that the reference clearly allows for the use of such co-chain extenders in amounts that encompass that claimed. Applicants have argued that Ehrlich et al. require a content of ethylene oxide to be present in the polyol portion. In response, given the

teachings within van Der wal et al. regarding the preferred use of the polyoxytetramethylene polyol over ethylene oxide based polyols and the teachings within Ehrlich et al. at column 5, lines 53-58 that as polyether polyol fraction or content decreases, the ethylene oxide content is reduced, the position is taken that at the reduced amounts or contents of the polyether polyol disclosed by van Der wal et al. and instantly claimed by applicants, it would have been obvious to employ the polyoxytetramethylene polyol in place of the ethylene oxide containing polyols. The position is taken that applicants have failed to appreciate the combined teachings of the references, and that the evidence of record is adequate to render the instant invention *prima facie* obvious. A *prima facie* case of obviousness having been established, the examiner has considered applicants' examples for a showing of unexpected results. However, despite applicants' response, applicants have failed to rebut the *prima facie* case of obviousness by such means as a showing of unexpected results, wherein examples commensurate in scope with the claims have been compared against the closest available art, namely Ehrlich et al. It has been held that the claims must be commensurate in scope with any showing of unexpected results. *In re Greenfield*, 197 USPQ 227. It has further been held that a limited showing of criticality is insufficient to support a broadly claimed range. *In re Lemin*, 161 USPQ 288. With these requirements in mind, applicants' examples of their invention are not commensurate in scope with the claims in terms of reactant species or amounts. Furthermore, it is noted that applicants' comparative examples within the specification fail to be representative of Ehrlich et al., because the exemplified comparative compositions fail to employ Ehrlich et al.'s disclosed polyol. It is not seen that applicants have addressed this issue.

5. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication should be directed to R. Sergent at telephone number (571) 272-1079.

/Rabon Sergent/
Primary Examiner, Art Unit 1796

R. Sergent
July 5, 2009